

Please amend the claims as follows:

1. (currently amended) In a system having a plurality of computers each having data sets stored thereon, a method of assigning a computer to service a request for a data set, said method comprising the steps of:

- (a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of said output nodes associated with one of said computers, and associated weights $w(j,k)$ between each said input node and each said output node;
- (b) receiving a request for particular data set I;
- (c) ~~imputing~~ inputting to said input layer an input vector having an entry $R(I)$ at input node I, said entry $R(I)$ being dependent upon a ~~the~~ number of requests for ~~the requested~~ said particular data set over a predetermined period of time; and
- (d) selecting a computer ~~assignment~~ associated with a selected one of said output nodes to service said particular data set ~~data request~~, where said selected output node is associated with a specific weight, said specific weight selected to minimize a predetermined metric measuring ~~the a~~ distance between said vector entry $R(I)$ and ~~the~~ said weights (j, I, k) , where $j=I$, associated with said input node I and said output nodes;
- (e) updating said specific weight by modifying said specific weight with a first factor dependent said metric distance between said vector entry $R(I)$ and said specific weight and a second factor dependent upon a means to balance a load across a subset of said output nodes.

2-4 (canceled)

5. (currently amended) In the system of claim 1,

~~The method of claim 1~~ where said means to balance a the load across a subset of said output nodes is dependent upon a the number of data requests serviced by said subset of said output nodes over said predetermined period of time divided by ~~the~~ a number of output nodes in said subset of said output nodes.

6. (currently amended) In a system having a plurality of computers each having data sets stored thereon, a method of assigning a computer to service a request for a data set, said method comprising the steps of:

(a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of said output nodes associated with one of said computers, and associated weights $w(j,k)$ between each said input node and each said output node;

(b) receiving a request for particular data set;

(c) inputting to said input layer an input vector having an entry $R(I)$ at input node I,

~~The method of claim 2~~ wherein said $R(I)$ is proportional to a the ratio of ~~(the~~ a number of previous requests for the ~~requested~~ said particular data set ~~)~~ and to ~~(the~~ a number of previous requests for a subset of all requested data sets ~~)~~, over said predetermined period of time;

(d) selecting a computer associated with a selected one of said output nodes to service said request for said particular data set, where said selected output node is associated with a specific weight, said specific weight selected to minimize a predetermined metric

- measuring the distance between said vector entry $R(I)$ and said weights $w(j,k)$, where $j=I$, associated with said input node I and said output nodes; and
- (e) updating said specific weight according to a predetermined update rule.
7. (currently amended) In a system having a plurality of computers each having data sets stored thereon, a method of assigning a computer to service a request for a data set, said method comprising the steps of:
- (a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of said output nodes associated with one of said computers, and associated weights $w(j,k)$ between each said input node and each said output node;
- (b) receiving a request for particular data set;
- (c) inputting to said input layer an input vector having an entry $R(I)$ at input node I , said entry $R(I)$ being dependent upon a number of requests for said particular data set over a predetermined period of time and
- (d) selecting a computer associated with a selected one of said output nodes to service said data request, where said selected output node, The method of claim 2 wherein each output node is associated with a neighborhood of other output nodes and said output node is associated with a specific weight, said specific weight selected to minimize a predetermined metric measuring a distance between said vector entry $R(I)$ and said weights $w(j,k)$, where $j=I$, associated with said input node I and said output nodes; and

(e) updating said specific weight with a predetermined update rule, and said step of updating said specific weight includes updating each said weight $w(j,k)$ in said neighborhood of said output node associated with said specific weight.

8. (currently amended) In a system having a plurality of computers each having data sets stored thereon, a method of assigning a computer to service a request for a data set, said method comprising the steps of:

(a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of said output nodes associated with one of said computers, and associated weights $W(j,k)$ between each said input node and each said output node;

(b) receiving a request for particular data set;

(c) inputting to said input layer an input vector having an entry $R(I)$ at input node I, said entry $R(I)$ being dependent upon a number of requests for said particular data set over a predetermined period of time and

(d) selecting a computer associated with a selected one of said output nodes to service said request for said particular data set, where said selected output node is associated with a specific weight, said specific weight selected to minimize a predetermined metric measuring a distance between said vector entry $R(I)$ and said weights $W(j,k)$, where $j=I$, associated with said input node I and said output nodes; and

(e) updating said specific weight ~~The method of claim 2~~ where said update is according to the formula $W(I,j)=W(I,j) + \alpha(R(I)-w(I,j)) + \beta(\sum W(i,k) - \gamma W(I,j))$, where alpha, beta and gamma are pre-determined constants.

9. (currently amended) ~~The system of~~ The method of step claim 1 wherein said input vector's components, other than said entry component R(I) associated with said input node I, are of value zero.

10.-12 (canceled)

13. (currently amended) ~~The method according to~~ The system of claim 1 further comprising the step of transmitting said request for said particular data set to said ~~server—selected computer,~~
~~associated with said server assignment.~~

14. – 15 (canceled)